

ACCURATE SIGNAL DETECTION IN A WIRELESS ENVIRONMENT

ABSTRACT OF THE DISCLOSURE

5 A method for accurate signal detection begins by receiving a radio frequency
signal, which is then converted into baseband signals. The processing then continues by
performing a normalized auto correlation on the down-converted baseband signal to
produce a normalized auto correlation signal. The process continues by performing a
periodic pattern detection on the down-converted baseband signal to produce a
10 normalized detected periodic signal. The process then continues by comparing the
normalized auto correlation value with an auto correlation threshold and by comparing
the normalized detected periodic signal with a set of thresholds. When the normalized
auto correlation value compares favorably with the auto correlation threshold and when
the normalized detected periodic signal compares favorably with the set of thresholds, the
15 down-converted baseband signal is indicated to be a valid signal.